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An Essay on the means of Preventing Hereditary and Acquired Predispositions to Pulmonary Consumption

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by

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In viewing the bills of mortality, we are instantly struck with the fact, that nearly one fifth of mankind die of Pulmonary Consumption. A disease, therefore, more formidable than any, to which the human species are subject; this then, is the excuse I offer, for making it the subject of the present essay; without it, I might be accused of arrogance, for offering any thing on this subject, which has engaged the attention of the greatest men, the science of medicine can boast. The ocean is made up of particles, each is distinct, and commanding attention: So is the science of medicine, every fact is to be regarded as such, and as constituting ~~a whole~~ part of a whole, which when combined, constitutes perfect knowledge. This then, is my motto, and if I should stumble on any thing original, which may tend either directly or indirectly to obviate the disease of Pulmonary consumption: I shall consider, the object of this essay more than attained.

There is, perhaps no disease, in which writers more uniformly agree, as to its history; while at the same time, none in which, the remedies that have proved successful in one case, have so uniformly failed in others. This, ill success, arises

principally from the want of proper attention, not being paid to the state of the system when remedies are used, and this ~~arises~~, from the nosological arrangment of diseases, where they are prescribed for, by their names, and not symptoms. This cause of failure, is in those cases, where the disease might have been cured had proper attention been paid. I am sorry to add, the most frequent cause of the inefficacy of Medicine in this disease, consists in its nature; for we see every day almost, that though the remedies are adapted and suited to ~~the~~ its pathology, yet in forty nine out of fifty cases, it proves fatal.

I can readily conceive that all of the remedies, that are in use for the cure of consumption, have in some stage or other proved useful as a palliative, removing some of the symptoms: also that some medicines which by their stimulating and tonic power, have, by acting on predisposing debility, prevented an attack of the disease. This, therefore is a good remedy when properly used, while at the same time it is the cause of thousands of deaths, inasmuch that the remedy thus used, is then advertised to the world as a specific for the cure of the disease; this we see in the common news papers. I need hardly say how, these remedies or specifics, become

directly, the cause of the mortality of the disease. The poor infatuated patient readily catches at every thing he hears or sees, as is the case with his uninformed friends and relations. A resort therefore, is instantly had to those specifics and their discoverers in most cases, who, as we may ~~very~~ readily believe are a set of Empyrics, for none others would advertise to the world a specific medicine for the cure of any disease but more particularly of the one in question, as it assumes such a variety of forms and stages; each according to nosologists, ought to have a new name, and also a remedy. The patient all of this while, is either becoming worse, from the use of those stimulating articles (when he should depleted) or from a loss of time, the disease has made such advances on the system, as to repel the most skilful and well directed practice.

So much then, for the classical arangment of diseases, and its consequencies, the quacks and their specifics, as causes retarding our knowledge and cure of Pulmonary Consumption.

There are many reasons, for the combined powers of medicine to be resorted to in order, that the disease of pulmonary consumption may be rendered less frequent; first, Its frequency, secondly Its mortality and thirdly, It generally attacks and carries

us off, when we are in and entering on the prime of life. This I consider among the greatest evils, that attend the disease: for to die, when from the common course of things, it might be expected, we have less cause to repine, and at the same our friends and relations are better prepared to sustain the shock, that is always felt on such occasions. Widely different, is the case with pulmonary consumption; it snatches from a father a son who has been separated from him for years, and who has been engaged in professional pursuits. Which when acquired, constitutes him an ornament to socity and a blessing to his parents and often paves the way to his grave. The misfortune does not end here, next a daughter, who like a full blown rose, soon withers in consequence of an insect wounding the roots of the bush on which it ~~seems~~ hangs. In some cases whole families arrive at the age of puberty, apparently in good health and sound constitutions; but as soon as they arrive at a certain period, they are attacked and destroyed in a manner, that leaves to the rest of the family and physician, only warning of their dangerous situation. The disease may be esteemed, in this case to be hereditary: for the cure of which and acquired predisposition, constitutes the object of this essay

First, of hereditary predisposition, which I divide into such as are affected with a peculiar diathesis, which I believe exists in the constitution of parents and thus communicating it to their offspring: secondly, combined with this diathesis, mal conformation of the body. This division I make because we see many persons die of the disease, without their existing any deformity; which I believe to be purely accidental and depending on the same cause, of deformities in other parts of the body as well as the thorax. The utility of this division will appear, as I proceed.

Every practitioner of medicine, when he commences business, ought to learn all of the diseases, which may be considered as hereditary, or peculiar to the different families in which he practises. By thus studying the diseases of families, he is enabled to prescribe for his patients, with promptitude and with success in some cases, where he might have been embarrassed, and when thus situated the chances are much against his prescribing properly. A knowledge of the predispositions, is of essential service, when there exists an Epidemic fever. So will a knowledge of the hereditary predisposition, in obviating consumption, be of singular advantage, as it enables a practitioner to regulate his practice accordingly, always believing the disease to be more dangerous in these cases.

Well, when the disease, is discovered to be in a family, where

there is also a family of children: here, then the disease is to be presumed as existing necessarily connected with the existence of the offspring, of such parents. The plan to be pursued by the physician, is to advise such children, to be brought up by another milk. This may be effected by means of a wet nurse, or where this cannot be done, the child should be raised as much as possible by hand. Where there is a nurse to be had, she should be free from all diseases, should have been accustomed to labour and a plain wholesome fare. The child may now be given to the nurse, her diet should consist of what she had been accustomed to, formerly, and also that she should continue her employments as before, and in short no variation in any circumstance, ought to be tolerated. The child should never be allowed to sleep in the same bed with their parents, (as is often the case) nor with the nurse: this practice is of itself injurious, but more so in case of the parents, especially if they are in the sweating stage of the disease. I can readily believe that such an atmosphere, as would be the consequence, of the sweating state of the diseased, is liable to many ill consequences. It has been thought the disease is contagious, every chance would be given it here; but as to the fact of contagiousness, I believe not, though I believe that such practice, would induce ~~such~~ a state of debility, in a majority of cases

prove to be the cause of other diseases, which would in all probability end in death. This separation of the child from the mother is also attended with salutary effects, as to the mother, by avoiding the depletion, that would necessarily follow her affording milk for the child. To this, there is a great objection as to the benefit the mother is to derive; for sometimes the plethora which would follow in consequence of stopping a natural discharge, as the milk; induces such a state of congestion in the lungs and thereby becomes the exciting cause, as acting on a predisposition. This should not induce the mother to suckle her own child, for it is a matter of perfect ease to have the milk drawn from the breast.

The effects produced in all of this changing, is attended with a positive and probable good result. No body will deny the good effects of changing unwholesome for wholesome milk, as regards the child. That milk is affected by the health of the woman from which it is drawn, needs no proof; while at the same time it affects the strength of the woman. This is seen, when women are nursing, in as much as they eat and drink more and also a diminution of the bulk of the body. The advantage gained here, as to obviating hereditary predisposition, consists, in the invigoration the system acquires from an early and well applied remedy, as to the constitution, what a good foundation, is to the building a house, or mill dam.

Supposing an unequal number of males and females ~~born of hereditary predisposition~~ to die of pulmonary consumption, as is the case; Dr Rush says there eight times as many

v. Dr Rush taught in his lectures that at one time, he had eight women under his care in consumption, & no one man.

of the latter, than of the former die of this disease. Still, I believe that more males than females, die in consequence of an hereditary predisposition. My reasons for this belief are as, follows.

1. Custom has sactioned, that the man, should do those things that are more directly connected with great bodily exertions, and particularly in the open air: this is one of the best preventatives, and properly managed one of the most effectual cures for the disease. Dr. Rush in his treatise of the disease begins, by remarking that it was unknown among the Indians of N. America at the time of its settlement and that directly as the manners and customs of the first settlers approximated to those of the Indians, so were they exempted from the disease. The inference I wish to draw, is, that men in their occupations approach more to the Indian manners, than women: and consequently less liable to be affected by acquired predispositions.

2. From men being rendered more hardy ~~from~~ by exposure, and of course not so liable to be affected by the changes of the weather, ~~though~~ and less apt to be affected by those diseases that owe their origin to those changes of the weather, as Catarrh, Pneumonia &c. all of which are especially active in forming Phthisis pulmonalis. That the vicissitudes of weather favour consumption may be seen, by referring to the diseases of climates that are uniformly hot or cold: here the disease is little known.

3. The dress of men, less disposes to the disease, on account of their quantity, quality and the manner of wearing them. The obvious effect of ~~the~~ clothes, consists in the tight manner they are worn by women

being tightly bound around the body, and thus prevents a free and uniform circulation of the blood.

4. Men are more accustomed to great exercises of the lungs, as in public speaking, talking loudly generally (tho not now) playing on wind instruments of musick &c. All of these causes, act merely by exercising the lungs which is upon a par, with the effects of exercise on other parts of the body.

5. From more men than women being able to travel and the more efficacious and lesS expensive manner, on horse back.

6. From the facility that men can change sedentary for active employments.

From all of these reasons, I conclude that when men do died of the disease, it is more frequently from an hereditary than acquired predisposition that invite an attack of the disease: ~~From~~ for the necessary exposure in consequence of their employments and all of the invigorating causes I have enumerated act by rendering the system impervious to the disease: therefore a greater cause is required to produce this effect. This consists in an hereditary diathesis prevailing in the system, which cannot be overcome, but by anticipating it with ~~and~~ the most rigorous treatment.

The practical fact obtained from an idea that men are more liable to be affected with an hereditary disease, consists in our using more strictly, those remedies, that are adapted to dangerous and obstinate cases, for such are those that depend on this diathesis.

The managment of the hereditary predisposition should continue from the invigorated state that children acquire by being nursed by

a healthy woman. The managment of children until they arrive at at that period at which the employments and occupations, are gene-rally determined on: should be such as to render the constitution robust and accustomed to the changes of the weather particularly. Ev-ry body will agree that the children of opulent parents are more subject to Catarrhs, pneumonies &c. than those of ~~poor~~ persons, where the chil-dren are of necessity exposed to the inclemencies of the weather. This proposition may be rendered stronger, by referring to the slaves of the southern states; where in many cases the children are almost with-out clothes and the fare of the coarsest sort. An imitation of this practice would tend much I believe to the invigoration and to the future health of such persons.

Where, however the system has not undergone the process, I have mentioned, there is a period at which the advice of a physician is of the utmost consequence, and one which will most frequently hap-pen. I mean that time of life at which parents chuse what occupa-tion to put their sons to; this is to be esteemed a very important time to apply the means of obviating pulmonary consumption, where we have every reason to believe an hereditary diathesis prevails in the system and needs only the exciting causes to make it appear. From what I have before said, those employments that required the greatest bodily exertions, should be preferred; where there exists none of the pre-monitory signs of real consumption: but on the contrary, if the dis-ease has in any way shown itself, the remedies (which consist in the mode of life to be pursued) should be adapted to the state of the system, in the same manner that attention should be paid to the state

of the system, when we change from depleting, to stimulating and tonic medicines.

The remedies or the mode to be pursued where we believe, there exists only a predisposition, which consists of a peculiar diathesis, are the following.

First, consists of employments where the bodily exertions are great and principally in the open air. Where the parents have led a sedantary mode of life; the reverse of his employments should be chosen.

Secondly, combined with this bodily labour, a correspondant exercise should be chosen for the lungs, which may be had by loud and frequent speaking, singing and a most excellent method playing on some wind instrument of musick.

Thirdly, the diet should correspond with the employment, and avoiding all stimulating drinks, such as rum, brandy &c. This is of the first importance to inculcate in the minds of the patients, also the use of Tobacco, as being one step advanced towards a love of spirituous liquors.

Fourthly, this mode of life should be continued until the patient arrives at the age of 25 years: at this period the constitution thus treated, may be concluded to be above, or as having chased away the predisposition. This mode of life should not be stopped abruptly, others should be engaged in, the of a more moderate natured, than those recommended. Thus where the occupation originally was a house carpenter, it may be that of a farmer: then moving on gradually he may be any thing.

The efficacy of the ~~two~~ first, third modes of life being such as to defy the disease of pulmonary consumption; may be illustrated by facts. The slaves in Virginia and the southern states, and engaged

in the most laborious employments exposed to all kinds of weather both by night and day, sometimes, their fare very plain, consisting chiefly of bread made of Indian corn (in Virginia) and their cloathing on a par with the rest of their treatment. The disease is hardly or never known among the slaves: I never knew but two negroes to die of consumption, neither of which were accustomed to lead the lives of the slaves generally. I conclude therefore that the absence of consumption among this class of people, is to be ascribed entirely to their mode of life.

As to the efficacy of exercising the lungs being a preventative against the disease, I have to adduce facts here also; the watchmen of this city exercise their lungs to a very great extent, while at the same time they are exposed to the inclemencies of the weather. Dr. Rush says he never knew one of them to be affected with consumption, or even Hymoptysis. I have taken up an idea, whether it is a fact or no, I can only say as it has occurred under my limited observation: viz the French men that come to this country are not as apt to have consumption as the English, Irish or Scotchmen. If this is a fact as a general rule, I account for it on ~~account~~ from of the robust state of the lungs, which is the consequence of their playing so generally on some wind instrument of musick: this I believe to be a universal fact, viz their great fondness for musick. Frenchmen may perhaps, be exempted from the disease, by their manner of living as regards their diet, for they are very fond of spices, garlic, onions, & made into sauces and these used as condiments. Whether this is a fact or no, those who have

lived longer and seen more of Frenchmen than I have, can only determine.

Whenever, therefore, we approach to the manners and customs of Indians, slaves ~~and~~ perhaps Frenchmen and certainly negrohmen, there may we expect to find ourselves more immediately rescued from within the whirl pool's influence, into which, if we are drawn, death is the consequence.

The other division of hereditary predisposition, has along with the consumptive diathesis, mal conformation of the thorax. This at once introduces more difficulty and of course, the probability of entirely removing the predisposition, less.

The plan of treatment is, as before, only when combined with these active employments, great care should be taken, to have the shoulders kept as nearly as possible in their natural situation: this may in a measure be accomplished by some such contrivance, as young girls are made to wear in consequence of their stooping forward. Sleeping on a matrass in winter and in summer on a plank floor, one or two blankets intervening, his head on a level with his body: this assists the other contrivance to render the thorax larger and more natural. While these external methods are used; the exercise of the lungs, will cause them to grow and expand to occupy every part of the thorax, thus ~~assist~~ cooperating with the external force in enlarging the capacity of the thorax and occupying at the same its cavity completely, preventing thereby, the contraction of the thorax again.

The acquired predispositions, consist in mal conformation of the body from all its causes, from acute and chronic diseases and all causes that tend to debilitate the system, generally.

First, of mal conformation of the thorax: this may be that, derived from the same cause (whatever it may be) as other deformities of the body, ~~and~~ that acquired from all sedatary modes of life, and lastly, by the means of dress, as in the case of ladies.

The remedies for the native deformity are such as I have mentioned, under the head of hereditary predisposition combined with deformity. The arms should be more vigorously employed, for here, the removal of the deformity constitutes the removal of the predisposition.

Those deformities that owe their origin to sedatary lives, imports, that they have been originally good, but by the same position of the body, from writing as clerks or studious men &c. the thorax has contracted and of course the lungs are more crowded than formerly. The ill effects of this compression of the lungs, consists, primarily in an inability to perform their natural office, for they receive the blood (which has gone thro the different parts of the body), loaded with impurities, and by a change which it undergoes when in the lungs; is thereby fitted again for the purposes to which it is destined. So, a confined state of the lungs, renders them unable to expand and receive all of the blood sent to them, for purification; the consequence is that obstructions are the result in the lungs and all the ill effects of it acting on the whole system. Nature in this state of the disease attempts to relieve herself by spontaneous hemorhages, from the lungs, nose, uterus &c. and thus points out to us the course to be pursued, which if now neglected, the disease is apt to end fatally.

The remedies for this predisposition, are, first where there is a plethoric habit, frequent bleedings, avoiding all irregularities of life, particularly the exciting causes, which are sendalary mody

of life, exercise on horseback and on foot, ~~and~~ gradual and regular exercise of the lungs and the same may of obviating the deformities of the thorax, as has been already mentioned. All of these remedies should be governed by the state of the system. The exercise of riding and walking are of the first importance, they should be used alternately in the same day: while riding strengthens the thorax, walking does the lower extremities, thereby keeping up a free and regular circulation of the blood or to use Dr. Rush's words "plumbing the system"

Women are particularly liable to be affected from this predisposing cause to Consumption, first, by the direct compression of the thorax by the manner they dress that parts, Secondly, from their sedentary and inactive modes of life, thirdly, from the want of proper exercise of the lungs and Fourthly, from the thinness of their dresses generally.

All of these causes tend to prove why more women than men die of consumption, because they are necessarily debarred from the effective means of obviating this predisposition, by the manner I have mentioned. The predisposing causes derived from diseases of the whole system, are either from Acute or Chronic diseases. In one case the debility is from action and in the other from abstraction: they both, however meet at one point and are upon a par. Thus is debility, and is equally active in predisposing to consumption.

The remedies for obviating this predisposition, consists in removing the debility, by stimulating and tonic medicines: the strictest attention being paid to the state of the system, for many circumstances require that the remedies ~~may~~ should be changed from stimulating Medicines to those less so, and vice versa. In no disease is attention more requisite than in this stage of Consumption.

I have said that debility from whatever cause it was produced, equally invite an attack of consumption: by this, I mean where the disease has affected all parts of the system equally: but on the contrary where the disease has confined itself more exclusively to any one part of the system, there it is probable will the debility be the greatest, and consequently invite a disease to correspond with the part affected. Thus a Dysentery leaves the bowels in a state of debility and thereby a state of excitability; when stimuli act on the bowels in this state, if great, a paralysis or prostration is produced, or if of a milder nature, the debilitated state of the bowels, prevent a reaction, great enough to constitute a dysentery; again The consequence in both of these cases, is a Diarrhea. So, in diseases which spend themselves on the lungs principally, there, may we expect an attack corresponding with the predisposing and exciting causes. The misfortune attending the formation of diseases in the lungs, is one great cause of the frequency and fatality of consumption;

First, from the nature and office of the lungs, diseases are more frequently invited to that part, and

Secondly, when attacked they are capable of sustaining an immense deal of disease, before any premonitory signs (even) shew themselves; thus increasing the difficulty to cure the disease. These two causes why diseases are more liable to attack and secondly to prove fatal, in affections of the lungs, may be illustrated by a simile which is used by Dr. Rush The lungs may be compared to a guard on one of the outposts, which guard ~~being~~ is thus exposed to be attacked more frequently, than the others; but he is either taken by surprise or is asleep and passed by unnoticed; the next set of guards trusting to those on the outposts, are more easily surprised and taken: so then the whole camp may be taken by a very inferior force. A cough, pain in the breast the palsied &c. are to be considered

-sidered as the outposts; these are frequently absent and thus we are frequently ~~stormed~~ unarmed and conquered almost without a struggle.

A physician, therefore, should be a vigilant watchman and should by giving timely notice to such persons, as are affected with any of the predispositions. Thus by accommodating his defence according to the expected attack, he may be prepared to make the greatest resistance.

One method now ~~of~~ for obviating the predispositions: this is one of the first importance and particularly as obviating that most dangerous of all, namely the hereditary predisposition: A change of climate, which may be divided into temporary and permanent.

First, of the temporary: this consists of a long journey to a climate to which the ~~stranger~~ patient is a stranger. To make this change as efficacious as possible, the journey should be performed on horseback, the patient should have business to transact, and in short every thing should be so contrived as to make the patient believe, that the journey was performed on account of business. His mind will be engaged with the business and the variety of scenery that every day presents itself; thus losing all sight of his complaint, and at the same time prevented from pouring over and dwelling on the idea of his being predisposed to so dreadful a disease as pulmonary consumption. The time taken up in performing this journey, should be from eighteen months to two years, thereby enhancing the efficacy of travelling with a change of climate.

Secondly, of the permanent change of climate; from this great advantage is to be anticipated not only in consumptive cases, but all chronic and hereditary diseases and from a degeneracy of the

of human species from any or from all the causes enumerated; if we may be allowed to reason from analogy. It is a fact which may be relied on, viz those animals, such as the horse, cattle, sheep and even poultry, after being accustomed to one plantation for a number of years, do degenerate in almost every respect. Farmers are well aware of this, and to obviate these bad consequences, they either exchange their stock in the whole or in part, by the latter they gain an advantage, which is called crossing the breed. I have myself seen the good effects of changing situations, as regards sheep: from being small, affected with distemper, and very badly clad with wool; they have become incredibly altered in every respect in which they were before deficient. The old women even change their poultry: this I have known done, and with the happiest effects.

From all of these facts, for such I esteem them, at least in part, where I have myself seen the good effects of a change of situation. I am inclined to the belief that a change of climate is one of the most efficacious means of overcoming hereditary predispositions, which consist (as I have before said) in a taint communicated from the parents to the offspring, and exists necessarily connected with every disease which is communicated in this way.

To obtain the greatest good, from a change of climate, it is the general opinion, that it should be to one uniformly hot or cold: this is a good practice; thereby we are exempted from all those diseases that belong to a changeable climate, and which are peculiarly active in predisposing to consumption. This effect of changing climates or its effects may be had, tho in a smaller

degree, by merely chaning situations under the same degree of lat-itude.

The good effects to be derived from a change of climate, does not consist merely in a change of the atmosphere; but on the necessary active employments both of body and mind, which is the consequence of moving to a strange country, where also a strange is the inhabitantz and their little peculiarities, which were at first overlooked and can only be acquired by attention. These changes act, by strengthening the constitution, and giving a greater tone to the digestive organs, both of which go hand in hand: for as medicines become accommodated to the system and thus lose their powers; so may climate situation and all its appendages be so accommodated to the mental and corporeal habits of man, as for him to become torpid. I will make my meaning more apparent by an example. Stimuli (the same) acting on the system for a given length of time lose much of their power, and thus a greater quantity is required to produced the same effects: this may be continued to such a length, that a man may take at one what would kill half a douzen men, without any inconvenience to himself. So may a man by pursueing the same occupation, the same train of thoughts, the same atmosphere, the same company &c. become as impervious to their effects as the system did to the stimuli just mentioned. A change of these stimuli I should have said, before, have a remarkable effect, tho of a milder nature. So may a man by changing his situation entirely, excite in himself another action, by another set of stimuli, which consist in changing an old habitation to a new one and connection also with new acquaintances.

The writer of this Essay is much prejudiced against excuses and preambles, as often accompanyments to ~~the~~ productions of this nature: but where facts stand forth, prejudice must give way. Therefore the reader will consider this heterogeneous ~~mass~~ collection of ideas, as the first attempt of the author, who in consequence of sickness and the shortness of the time which could be devoted to the subject, as excuses for the unconnected manner in which it is written.

22nd Feb.y 1812.